Element Performance Inspection (EPI) Data Collection Tool
3.2.2 Flight / Load Manifest / Weight and Balance Control (OP)

ELEMENT SUMMARY INFORMATION

Purpose of this Element (certificate holder's responsibility):

- To ensure that the certificate holder loads its aircraft according to the approved loading plan, the aircraft are loaded within the weight and balance limitations of the Aircraft Flight Manual, and the load manifest is accurately prepared and retained in accordance with 14 CFR 121.695.

Objective (FAA oversight):

- To determine the effectiveness of the certificate holder's procedures in meeting the desired output of the process.
- To determine if the certificate holder follows its procedures, controls, process measurements, and interfaces for the Flight / Load Manifest / Weight and Balance Control process.
- To determine if there were any changes in the personnel identified by the certificate holder as having responsibility and/or authority for the Flight / Load Manifest / Weight and Balance Control process.

Specific Instructions:

- Intentionally left blank.

Related EPIs:

- 3.1.8 Carriage of Cargo (OP)
- 3.2.1 Dispatch / Flight Release (OP)
- 3.2.3 MEL / CDL Procedures (OP)
- 4.2.6 Training of Station Personnel (OP)
- 5.1.5 Station Facilities (OP)

SUPPLEMENTAL INFORMATION

Specific Regulatory Requirements (SRRs):

- SRRs:

  119.43(b)
  119.43(b)(1)
  119.43(b)(2)
  119.43(c)
  121.135(a)(1)
  121.135(b)(1)
  121.135(b)(2)
  121.135(b)(20)
  121.135(b)(3)
  121.135(b)(9)
  121.153(b)
  121.198(a)
  121.198(c)

- SRRs:

  121.665
  121.693(a)
  121.693(b)(1)
  121.693(b)(2)
  121.693(b)(3)
  121.693(b)(4)
  121.693(c)
  121.693(d)
  121.693(e)
  121.695(a)(1)
  121.695(a)(2)
  121.695(a)(3)
  121.695(b)
  121.697(a)(1)
  121.697(a)(2)
  121.697(a)(3)
  121.697(a)(4)
  121.697(a)(5)
  121.697(b)
  121.697(c)
  121.697(d)
  121.697(e)(1)
  121.697(e)(2)
  A.096
  A.097
  A.098
  A.099
  E.096Weight and Balance Control Procedures

Related CFRs & FAA Policy/Guidance:

- Related CFRs:

  Intentionally left blank

- FAA Policy/Guidance:

  FAA Order 8400.10. Volume 6, Chapter 2
  Advisory Circular AC 120-27E

EPI SECTION 1 - PERFORMANCE OBSERVABLES	
Objective: The tasks and questions in this section of the data collection tool (DCT) are designed to assist the inspector in determining if the certificate holder follows its written procedures and controls and meets the established performance measures of the process. To accomplish this, questions have been generated to test both the outputs of the process as well as the process itself. Question 1 and its following subquestions are directed at the output(s) of the process, whereas questions 2-6, when answered, should be directed at the process itself	
Tasks	
	To meet this objective, the inspector must accomplish the following tasks:
1.	Review the information listed in the Supplemental Information section of this DCT.
2.	Review the policies, procedures, instructions, and information for the Flight / Load Manifest / Weight and Balance Control process contained in the certificate holder's manual.
3.	Review the last accomplished associated safety attribute inspection (SAI) for this element with emphasis on the controls, process measurements, and interface attribute section responses.
4.	Observe the Flight / Load Manifest / Weight and Balance Control process to gain an understanding of the procedures, instructions, and information contained in the certificate holder's manual.
5.	Discuss the Flight / Load Manifest / Weight and Balance process with the personnel (other than management) who perform the duties and responsibilities required by the process.

Questions		
	To meet this objective, the inspector must answer the following questions:	
1.	Determine whether the following performance measures met:	
1.1.	Does the certificate holder follow a procedure during passenger enplaning that is described in its manual to ensure that the aircraft is loaded within CG limits?	☐ Yes ☐ No, Explain
1.2.	Was weight and balance computed accurately and within limits?	☐ Yes ☐ No, Explain
1.3.	Does the certificate holder randomly check declared cargo weights furnished by air freight forwarders in order to assure the use of accurate load manifests and weight and balance computations?	☐ Yes ☐ No, Explain
1.4.	Were aircraft loaded in accordance with the load plan? *Related Performance JTIs:* 1. Check at the Dispatch Center that responsible company personnel ensure the load manifest contains evidence that the aircraft is loaded according to an approved schedule that ensures the center of gravity is within approved limits at takeoff time, in accordance with the Certificate Holder's design. *Sources:* 121.693(d) 2. Check at the Aircraft Cockpit that the pilot in command confirms the load manifest contains evidence that the aircraft is loaded according to an approved schedule that ensures the center of gravity is within approved limits at takeoff time, in accordance with the Certificate Holder's design. *Sources:* 121.693(d) 3. Check at the Records Repository to ensure the load manifest contained evidence that the aircraft was loaded according to an approved schedule that ensured the center of gravity was within approved limits at takeoff	☐ Yes ☐ No, Explain

	time, in accordance with the Certificate Holder's design. *Sources:* 121.693(d) 4. Check at the passenger staging area that responsible company personnel follow procedures for aircraft loading, including details for distribution of passengers in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 5. Check at the Aircraft that responsible company personnel follow procedures for aircraft loading, including details for distribution of passengers and the necessary restrictions to passenger movement, on the ground and during flight in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 6. Check at the Dispatch Center that responsible company personnel follow procedures for aircraft loading, including details for distribution of fuel in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 7. Check at the Aircraft that responsible company personnel follow procedures for aircraft loading, including details for distribution fuel in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 8. Check at the Dispatch Center that responsible company personnel follow procedures for aircraft loading, including details for distribution of cargo in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 9. Check at the Aircraft that responsible company personnel follow procedures for aircraft loading, including details for distribution cargo in accordance with the Certificate Holder's design. *Sources:* AC 120-27E	
2.	Were the certificate holder's policies, procedures, instructions, and information, contained in its manual, for the Flight / Load Manifest / Weight and Balance Control process followed? *Related Performance JTIs:* 1. Check at the Records Repository to ensure the load manifest contained the names of passengers at takeoff time, unless such information was maintained by other means in accordance with the Certificate Holder's design. *Sources:* 121.693(e) 2. Check at the Air Carrier Specified Location that responsible company personnel follow approved procedures to ensure the load manifest contains the names of passengers at takeoff time, unless such information is maintained by other means in accordance with the Certificate Holder's design. *Sources:* 121.693(e) 3. Check at the Passenger Staging Area that responsible company personnel are knowledgeable of instructions and limitations associated with the distribution of passengers, cargo, fuel, and other items, including blocking off aircraft seats or compartments in order to remain within the CG limits in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 4. Check at the Aircraft by observation that responsible company personnel	☐ Yes ☐ No, Explain

	follow procedures associated with the distribution of passengers, cargo, fuel, and other items, including blocking off aircraft seats or compartments in order to remain within the CG limits in accordance with the Certificate Holder's design. *Sources:* AC 120-27E	
3.	Were the Flight / Load Manifest / Weight and Balance Control process controls followed? *Related Performance JTIs:* 1. Check at the Aircraft Cockpit that the load manifest form was accurately prepared and signed before each takeoff by employees of the Certificate Holder who had the duty of supervising the loading of aircraft and preparing the load manifest, or by other qualified persons in accordance with the Certificate Holder's design. *Sources:* 121.665 2. Check at the Aircraft that the procedures contained in the Certificate Holder's weight and balance program are being followed by employees of the Certificate Holder, or other qualified persons authorized by the Certificate Holder, who have the duty of supervising the loading of the aircraft in accordance with the Certificate Holder's design. *Sources:* 121.665 3. Check at the Dispatch Center that the load manifest contained the weight of the aircraft at takeoff time in accordance with the Certificate Holder's design. *Sources:* 121.693(a) 4. Check at the Aircraft Cockpit that the load manifest contained the weight of the aircraft at takeoff time in accordance with the Certificate Holder's design. *Sources:* 121.693(a) 5. Check at the Records Repository that the load manifest contained the weight of the aircraft at takeoff time in accordance with the Certificate Holder's design. *Sources:* 121.693(a) 6. Check at the Dispatch Center that the load manifest contained the weight of the cargo and baggage at takeoff time in accordance with the Certificate Holder's design. *Sources:* 121.693(a) 7. Check at the Aircraft Cockpit that the load manifest contained the weight of the cargo and baggage at takeoff time in accordance with the Certificate Holder's design. *Sources:* 121.693(a) 8. Check at the Records Repository that the load manifest contained the weight of the cargo and baggage at takeoff time in accordance with the Certificate Holder's design. *Sources:* 121.693(a) 9. Check at the Dispatch Center that the load manifest contained the weight of the passengers and crewmembers at takeoff time in accordance with the Certificate Holder's design. *Sources:* 121.693(a) 10. Check at the Aircraft Cockpit that the load manifest contained the weight of the passengers and crewmembers at takeoff time in accordance with the Certificate Holder's design.	☐ Yes ☐ No, Explain

		Sources: 121.693(a)	
	11.	Check at the Records Repository that the load manifest contained the weight of the passengers and crewmembers at takeoff time in accordance with the Certificate Holder's design. *Sources:* 121.693(a)	
	12.	Check at the Dispatch Center that responsible company personnel ensure the load manifest contains the total weight computed under approved procedures in accordance with the Certificate Holder's design. *Sources:* 121.693(c)	
	13.	Check at the Records Repository that the load manifest contained the total weight computed under approved procedures in accordance with the Certificate Holder's design. *Sources:* 121.693(c)	
	14.	Check at the Dispatch Center that responsible company personnel ensure the load manifest contains evidence that the aircraft is loaded according to an approved schedule that ensures the center of gravity is within approved limits at takeoff time, in accordance with the Certificate Holder's design. *Sources:* 121.693(d)	
	15.	Check at the Records Repository to ensure the load manifest contained evidence that the aircraft was loaded according to an approved schedule that ensured the center of gravity was within approved limits at takeoff time, in accordance with the Certificate Holder's design. *Sources:* 121.693(d)	
	16.	Check at the Dispatch Center to ensure the load manifest contained the names of passengers at takeoff time, unless such information was maintained by other means in accordance with the Certificate Holder's design. *Sources:* 121.693(e)	
	17.	Check at the Records Repository that the Certificate Holder has retained copies of the records required in FAR 121.695 for at least three months, in accordance with the Certificate Holder's design. *Sources:* 121.695(b)	
	18.	Check at the Air Carrier Specified Location, except as provided in FAR 121.697(d), that when a flight originates at a place other than the Certificate Holder's principal base of operations, the pilot in command (or another person not aboard the airplane who is authorized by the Certificate Holder) shall, before or immediately after departure of the flight, mail signed copies of the documents listed in FAR 121.697(a), to the principal base of operations, in accordance with the Certificate Holder's design. *Sources:* 121.697(c)(1)	
	19.	Check at the Technical Publications Library, that the Certificate Holder conducting supplemental operations, identifies in its operations manual the person having custody of the copies of documents retained in accordance with FAR 121.697(d), in accordance with the Certificate Holder's design. *Sources:* 121.697(e)(1)	
	20.	Check at the FAA Location, that the Certificate Holder conducting supplemental operations, identifies in its operations manual the person having custody of the copies of documents retained in accordance with FAR 121.697(d), in accordance with the Certificate Holder's design. *Sources:* 121.697(e)(1)	

	21. Check at the aircraft that the loading schedule being used is simple, orderly and based on sound principles that will reduce the elements of human error in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 22. Check at the air carrier specified location that loading schedules are simple, orderly and based on sound principles that will reduce the elements of human error in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 23. Check in the dispatch center that the responsible personnel are knowledgeable of the provisions for blocking off seats or compartments in order to remain within the CG limits, and how they will ensure that such seats or compartments are not occupied during the operation in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 24. Check at the Ramp that responsible company personnel are knowledgeable of instructions and limitations associated with the distribution of passengers, cargo, fuel, and other items, including blocking off aircraft seats or compartments in order to remain within the CG limits in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 25. Check at the Aircraft Cockpit that responsible company personnel are knowledgeable of instructions and limitations associated with the distribution of passengers, cargo, fuel, and other items, including blocking off aircraft seats or compartments in order to remain within the CG limits in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 26. Check at the Ramp by observation that responsible company personnel follow procedures associated with the distribution of passengers, cargo, fuel, and other items, including blocking off aircraft seats or compartments in order to remain within the CG limits in accordance with the Certificate Holder's design. *Sources:* AC 120-27E 27. Check at the Dispatch Center by observation that responsible company personnel follow procedures associated with the distribution of passengers, cargo, fuel, and other items, including blocking off aircraft seats or compartments in order to remain within the CG limits in accordance with the Certificate Holder's design. *Sources:* AC 120-27E	
4.	Did the records for the Flight / Load Manifest / Weight and Balance Control process comply with the instructions provided in the certificate holder's manual?	☐ Yes ☐ No, Explain
5.	Were the process measurements for the Flight / Load Manifest / Weight and Balance Control process effective in identifying problems or potential problems and providing corrective action for them?	☐ Yes ☐ No, Explain
6.	Did personnel properly handle the associated interfaces by complying with other written policies, procedures, instructions, and information that are related to this element?	☐ Yes ☐ No, Explain

EPI SECTION 1 - PERFORMANCE OBSERVABLES Drop-Down Menu
1. Personnel.
2. Tools and Equipment.
3. Technical Data.
4. Procedures, policies or instructions or information.
5. Materials.
6. Facilities.
7. Controls.
8. Process Measures.
9. Interfaces.
10. Desired Outcome.
11. Other.

EPI SECTION 2 - MANAGEMENT RESPONSIBILITY & AUTHORITY OBSERVABLES	
Objective: The questions in this section address the responsibility and authority of the process. They are designed to assist the inspector in determining if there is a clearly identifiable, qualified, and knowledgeable person who is responsible for the process, is answerable for the quality of the process, and has the authority to establish and modify the process. (The person with the authority may or may not be the person with the responsibility.)	
Tasks	
	To meet this objective, the inspector must accomplish the following tasks:
	NOTE: If no personnel or major program changes (as defined by the principal inspector (PI)) affecting the responsibility or authority attributes for this element have occurred since the last SAI and/or EPI was accomplished, then do not perform tasks 3 - 6 below. Answer questions 1 and 2, below, and provide the name/title.
1.	Identify the person who has overall responsibility for the Flight / Load Manifest / Weight and Balance Control process.
2.	Identify the person who has overall authority for the Flight / Load Manifest / Weight and Balance Control process.
3.	Review the duties and responsibilities for the person(s) who manage the Flight / Load Manifest / Weight and Balance Control process documented in the certificate holder's manual.
4.	Review the appropriate organizational chart.
5.	Discuss the Flight / Load Manifest / Weight and Balance Control process with the management personnel identified in tasks 1 and 2.
6.	Evaluate the qualifications and work experience of the management personnel identified in tasks 1 and 2.

Questions		
	To meet this objective, the inspector must answer the following questions:	
1.	Is there a clearly identified person who is responsible for the quality of the Flight / Load Manifest / Weight and Balance Control process?	☐ Yes ☐ No, Explain Name/Title:
2.	Is there a clearly identified person who has authority to establish and modify the certificate holder's policies, procedures, instructions, and information for the Flight / Load Manifest / Weight and Balance Control process?	☐ Yes ☐ No, Explain Name/Title:
3.	Does the responsible person know that he/she has responsibility for the Flight / Load Manifest / Weight and Balance Control process?	☐ Yes ☐ No, Explain ☐ No Change
4.	Does the person with authority know that he/she has authority for the Flight / Load Manifest / Weight and Balance Control process?	☐ Yes ☐ No, Explain ☐ No Change
5.	Does the person with responsibility for the Flight / Load Manifest / Weight and Balance Control process meet the qualification standards?	☐ Yes ☐ No, Explain ☐ No Change

6.	Does the person with authority to establish and modify the Flight / Load Manifest / Weight and Balance Control process meet the qualification standards?	☐ Yes ☐ No, Explain ☐ No Change
7.	Does the person with responsibility understand the controls, process measurements, and interfaces associated with the Flight / Load Manifest / Weight and Balance Control process?	☐ Yes ☐ No, Explain ☐ No Change
8.	Does the person with authority understand the controls, process measurements, and interfaces associated with the Flight / Load Manifest / Weight and Balance Control process?	☐ Yes ☐ No, Explain ☐ No Change
9.	Does the responsible person know who has authority to establish and modify the Flight / Load Manifest / Weight and Balance Control process?	☐ Yes ☐ No, Explain ☐ No Change
10.	Does the individual with authority know who has the responsibility for the Flight / Load Manifest / Weight and Balance Control process?	☐ Yes ☐ No, Explain ☐ No Change

EPI SECTION 2 - MANAGEMENT RESPONSIBILITY & AUTHORITY OBSERVABLES Drop-Down Menu
1. Assignment of responsibility.
2. Assignment of authority.
3. Does not understand procedures, policies or instructions and information.
4. Does not understand controls.
5. Does not understand process measurements.
6. Does not understand interfaces.
7. Span of control.
8. Position vacant.
9. Other.